

CLAIMS

1. An illuminated notebook binder comprising:
 - a) a front cover and a rear cover with each cover having:
 - (1) an outer surface,
 - (2) an inner surface,
 - (3) an outer end,
 - (4) an inner end,
 - (5) an upper edge, and
 - (6) a lower edge,
 - b) a spine interconnecting the inner ends of the front and back covers, and
 - c) indicia located adjacent a corner of the front cover, wherein said indicia is illuminated by at least one LED that is activated and controlled by a binder-integral electronic control circuit.
2. The illuminated notebook binder as specified in claim 1 wherein said binder is comprised of a three-ring binder having on the inner surface of the front and/or rear covers a plurality of compartments, pockets and pencil/pen retaining loops.
3. The illuminated notebook binder as specified in claim 1 further comprising a notebook closure flap that encircles the spine extending across the upper edges, the outer ends and the lower edges of said binder, wherein said closure flap further comprises a flap closure means.
4. The illuminated notebook binder as specified in claim 3 wherein the flap closure means comprises a zipper.
5. The illuminated notebook binder as specified in claim 1 wherein said indicia is comprised of plastic images located on said binder's front cover at a corner bordered by the lower edge and the outer end of said binder.

6. The illuminated notebook binder as specified in claim 1 wherein said indicia is comprised of plastic images located on said binder's front cover at a corner bordered by the upper edge and the outer end of said binder.

7. The illuminated notebook binder as specified in claim 5 wherein said indicia is comprised of a solid central image that includes a series of sequential lines that resemble and progress outward from the solid central image.

8. The illuminated notebook binder as specified in claim 7 wherein said solid central figure and the sequential progressive lines resemble a heart.

9. The illuminated notebook binder as specified in claim 8 wherein the central image and the sequential progressive lines are made of plastic with each segment having attached an outward extending slat that comprises a light-transfer ribbon having outer ends, wherein the outer ends are positioned proximate to said LEDs that edge-light the ribbon which in turn, transfers the light from said LEDs to the central image and the progressive lines, wherein said LEDs are activated and controlled by said electronic control circuit.

10. The illuminated notebook binder as specified in claim 1 wherein said indicia is comprised of a plurality of sequential, plastic images located on the outer surface and adjacent the outer end of said front cover, wherein on the inner surface of said front cover and behind each pair of said plastic images is located an LED cavity that is dimensioned to retain an LED that is substantially centered behind each pair of images, wherein said LEDs are activated and controlled by said electronic control circuit.

11. The illuminated notebook binder as specified in claim 1 wherein said electronic control circuit is packaged in an enclosure that is located on the corner of the inner surface of the front cover opposite said indicia.

12. The illuminated notebook binder as specified in claim 1 wherein said electronic control circuit has means for selectively energizing said set of LEDs.

13. The illuminated notebook binder as specified in claim 1 wherein said electronic control circuit is further comprised of a HOLTEK HT-2884 integrated circuit, which includes a total of sixteen pins, wherein:

- a) pin 1 is power ground
- b) pins 2, 9-12 are not used,
- c) pins 3-7 are each connected to the anode of said set of LEDs (DS1-DS5) with the cathode of the LEDs connected to ground via a first resistor (R1),
- d) pin 8 is connected to a d-c power source,
- e) pins 13 and 14 are connected across a second resistor (R2) that is selected to set the activation time for the set of LEDs,
- f) pin 15 is connected to a first switch (S1) that, when closed, said LEDs automatically illuminate in a selectable sequence, and
- g) pin 16 is connected to a second switch (S2) that, when closed, said LEDs illuminate one LED at a time in sequence each time the second switch (S2) is closed.

14. The illuminated notebook binder as specified in claim 13 wherein said HOLTEK HT-2884 integrated circuit includes an automatic power-off feature that shuts-off the power to said LEDs after a pre-selected time has elapsed.

15. The illuminated notebook binder as specified in claim 1 wherein said power source comprises a "coin cell battery" (BT1) having an output ranging from 2.4 to 3.4 volts d-c.

16. The illuminated notebook binder as specified in claim 1 further comprising a sound circuit that is connected to pin 10 of said HOLTEK HT-2884 integrated circuit, wherein said sound circuit is comprised of an NPN transistor (Q1) having a base (B) connected via a current limiting resistor (R3) to pin 10, an emitter (E) connected to

ground and a collector (C) connected to a loudspeaker (LS1) that is located on the front cover adjacent said indicia.

17. The illuminated notebook binder as specified in claim 16 wherein said loudspeaker (LS1) is comprised of a piezo-electric transducer.

18. The illuminated notebook binder as specified in claim 16 wherein said sound circuit can be programmed to provide up to five sounds that are selected by an end user.

19. The illuminated notebook binder as specified in claim 1 wherein pin 2 is connected internally to an open collector transistor that can be used to trigger a second integrated circuit.